

ANGKA GILIRAN:

UNIVERSITI SAINS MALAYSIA

Second Semester Examination
Academic Session 2012/2013

June 2013

RAK 344 – History and Theory of Architecture 1
[Sejarah dan Teori Senibina 1]

Duration: 3 hours
[Masa: 3 jam]

Please check that this examination paper consists of SEVEN printed pages before you begin the examination.

Sila pastikan bahawa kertas peperiksaan ini mengandungi TUJUH muka surat yang tercetak sebelum anda memulakan peperiksaan ini.

Write your name on first page of this question paper. Please submit this question paper with your answer paper. Without submission of the question and answer papers, you are considered do not sit in this examination.

Tulis angka giliran anda pada mukasurat pertama kertas soalan ini. Sila hantar kertas soalan ini bersama-sama kertas jawapan. Tanpa hantaran kertas jawapan bersama kertas soalan, anda dikira tidak menduduki peperiksaan ini.

Answer **SEVEN** questions only. Answer **THREE** questions from **Section A** and **FOUR** questions from **Section B**.

*Jawab **TUJUH** soalan sahaja. Jawab **TIGA** soalan dari **Bahagian A** dan **EMPAT** soalan dari **Bahagian B**.*

Please separate the answer book for each Section.
Sila asingkan buku jawapan untuk setiap Bahagian.

In the event of any discrepancies, the English version shall be used.

[Sekiranya terdapat sebarang percanggahan pada soalan peperiksaan, versi Bahasa Inggeris hendaklah digunapakai].

SECTION A : There are **FIVE** questions. Answer **THREE** questions only.
BAHAGIAN A : Terdapat **LIMA** soalan. Jawab **TIGA** soalan sahaja.

1. There are **FOUR (4)** questions regarding to architecture of Medieval Ages in Europe. You need to answer **all questions**.

*Terdapat **EMPAT (4)** soalan mengenai Senibina Zaman Pertengahan di Eropah. Anda perlu menjawab semua soalan.*

- (a) Sketch a common plan of a Basilica Church in the Early Christians Architecture.

Lakarkan satu pelan lazim Gereja Basilika dalam Senibina Awal Kristian.

(5 marks/markah)

- (b) Sketch an axonometric or a perspective view of pendentive dome construction system in Byzantine Architecture.

Lakarkan axonometrik atau pandangan perspektif pembinaan sistem kubah pendentif dalam senibina Bizantin.

(5 marks/markah)

- (c) Sketch a sectional view of construction system in Romanesque Architecture.

Lakarkan pandangan keratan sistem pembinaan dalam senibina Romanes.

(5 marks/markah)

- (d) Sketch a common Latin cross plan of Gothic Cathedral.

Lakarkan pelan lazim salib Latin Katedral Gothik.

(5 marks/markah)

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2. There are **FIVE** questions regarding the Ground Floor Plan Design in Mosque Architecture. With annotated sketches, you need to answer only **FOUR questions**.

*Terdapat **LIMA** soalan mengenai Rekabentuk Pelan Lantai Senibina Masjid. Dengan menggunakan lakaran bernota, anda perlu menjawab **EMPAT soalan** sahaja.*

- (a) Sketch a plan of the Arab Mosque
Lakarkan pelan Masjid Arab
(5 marks/markah)
- (b) Sketch a plan of the Ottoman Courtyard Dome Mosque
Lakarkan pelan Masjid Uthmaniyah Berkubah Halaman
(5 marks/markah)
- (c) Sketch a plan of the Malay Pyramid Roof Mosque
Lakarkan pelan Masjid Melayu Berkubah Piramid
(5 marks/markah)
- (d) Sketch a plan of the African Mosque
Lakarkan pelan Masjid Afrika
(5 marks/markah)
- (e) Sketch a plan of the Indian Mosque
Lakarkan pelan Masjid India
(5 marks/markah)

3. There are **FIVE** questions regarding the Elevation or Section Design in Mosque Architecture. With annotated sketches, you need to answer only **FOUR questions**.

*Terdapat **LIMA** soalan mengenai Rekabentuk Tampak dan Keratan Senibina Masjid. Dengan menggunakan lakaran bernota, anda perlu menjawab **EMPAT soalan** sahaja.*

- (a) Sketch an elevation of the Arab Mosque
Lakarkan tampak Masjid Arab
(5 marks/markah)
- (b) Sketch an elevation of the Persian Mosque
Lakarkan tampak Masjid Parsi
(5 marks/markah)
- (c) Sketch a section of the Malay Pyramid Roof Mosque
Lakarkan keratan Masjid Melayu berkubah Piramid
(5 marks/markah)
- (d) Sketch a section of the Afrika Mosque
Lakarkan keratan Masjid Afrika
(5 marks/markah)
- (e) Sketch an elevation of the Indian Mosque
Lakarkan tampak Masjid India
(5 marks/markah)

4. With the aid of sketches, explain the characteristic of Traditional Chinese Architecture in terms of:

Dengan berbantuan lakaran, jelaskan karakteristik Senibina Tradisional Cina dari segi:

- (a) Structural system / *Sistem struktur*
(5 marks/markah)
- (b) Roof form / *Bentuk bumbung*
(5 marks/markah)
- (c) Building layout plan / *Susunan pelan bangunan*
(5 marks/markah)
- (d) Building axis / *Arah paksi bangunan*
(5 marks/markah)

5. Numerous architectural studies have shown that Hindu, Buddhist or Hindu-Buddhist architectural styles from India have influenced many early buildings in Southeast Asian region. With a sketch of perspective drawing, name the architectural style and location (country) of these buildings:

Banyak kajian senibina telah menunjukkan bahawa stail senibina Hindu, Buddha atau gabungan stail Hindu-Buddha dari India telah banyak mempengaruhi rekabentuk bangunan awal di Asia Tenggara. Dengan sebuah lakaran perspektif, namakan stail senibina asal dan lokasi (negara) bagi bangunan-bangunan berikut:

- (a) Candi Muara Takus / *Candi Muara Takus*
(5 marks/markah)
- (b) Borobudur / *Borobudur*
(5 marks/markah)
- (c) Prambanan Temple / *Kuil Prambanan*
(5 marks/markah)
- (d) Angkor Wat / *Angkor Wat*
(5 marks/markah)

SECTION B : There are **SIX** questions. Answer **FOUR** questions only.
BAHAGIAN B : Terdapat **ENAM** soalan. Jawab **EMPAT** soalan sahaja.

6. By using annotated sketch, list down the characteristics of Gothic architecture.

Dengan menggunakan lakaran bernota, senaraikan karakteristik senibina Gothik.

(10 marks/markah)

7. Name **three (3)** great architects and examples of their famous buildings design during Renaissance period.

*Namakan **tiga (3)** arkitek tersohor dan contoh rekabentuk bangunan mereka yang terkenal pada zaman Renaisan.*

(10 marks/markah)

8. Sketch details of 'capital' of:
Lakarkan perincian 'kapital' pada:

- (a) Muqarnas column / *Tiang Muqarnas*
- (b) Masrabiya column / *Tiang Masrabiya*

(10 marks/markah)

9. Sketch 'ground foundation to roof' detail of Greek Column and Entablature illustrating the Doric Order.

Lakarkan perincian 'asas tanah hingga bumbung' Tiang dan Entablatur Yunani yang menggambarkan Orde Dorik.

(10 marks/markah)

10. With annotated sketches of side elevation, explain the similarities and differences between The Nagara and Dravida styles of Hindu Temple.

Dengan lakaran pandangan sisi bernota, jelaskan persamaan dan perbezaan antara Kuil Hindu berstail Nagara dan Dravida

(10 marks/markah)

11. Sketch an exterior perspective of:

Lakarkan sebuah lukisan perspektif luaran bagi:

(a) Buddhist Stupa / *Stupa Buddha*

(b) Pura Besakih Hindu Temple / *Kuil Hindu Pura Besakih*

(10 marks/markah)